

## ABSTRACT OF THE DISCLOSURE

In the fabrication of a CMOS-TFT, non-selectively doping (for both of p- and n-type TFTs) and selectively doping (only for the n-type TFT) with p-type impurities (B: boron) are successively performed at very low concentrations to control the threshold voltages ( $V_{thp}$  and  $V_{thn}$ ). More specifically, the  $I_d$ - $V_g$  characteristics of the p- and n-type TFTs are initially negatively shifted. In this state, non-selectively doping is performed positively to shift the p- and n-type TFTs first to adjust the  $V_{thp}$  to a specified value. Selectively doping is then performed positively to shift only the n-type TFT to adjust the  $V_{thn}$  to a specified value. The threshold voltages of the p- and n-type TFTs constructing the CMOS-TFT can be independently and efficiently (with minimum photolithography) controlled with high accuracy.